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ABSTRACT

The correct assessment of observable student behavior is an important tool in the ongoing education process. Whether the setting is a classroom, a field experience, an activity, or a residential treatment center, proper evaluation techniques will provide information for the determination of policies and programs. The Flexible Observation Instrument for Student Behavior (FOISB) uses different variables and incorporates them into a code which facilitates recording and allows the observing teacher to move from one student to the next in a relatively short interval of time. FOISB is particularly valuable in the evaluation of field experiences because of the short time it takes to record the needed data. The observer records the child's behavior according to (a) with whom he/she is interacting, (b) the child's general behavior, and (c) the specific nature of the behavior. The first two behaviors recorded are used to determine the third, more specific behavior from a list of possible alternatives. (Extensive definitions of all behaviors are included.) (MK)

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Center for Social Organization of Schools

Report no. 197

May 1975

A FLEXIBLE OBSERVATION INSTRUMENT FOR STUDENT BEHAVIOR

Robert E. Slavin

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Introductory Statement

The Center for Social Organization of Schools has two primary objectives: to develop a scientific knowledge of how schools affect their students, and to use this knowledge to develop better school practices and organization.

The Center works through three programs to achieve its objectives. The Schools and Maturity program is studying the effects of school, family, and peer group experiences on the development of attitudes consistent with psychosocial maturity. The objectives are to formulate, assess, and research important educational goals other than traditional academic achievement. The School Organization program is currently concerned with authority-control structures, task structures, reward systems, and peer group processes in schools. The Careers program (formerly Careers and Curricula) bases its work upon a theory of career development. It has developed a self-administered vocational guidance device and a self-directed career program to promote vocational development and to foster satisfying curricular decisions for high school, college, and adult populations.

This report, prepared by the School Organization Program, presents a framework for constructing an observation instrument focusing on student behavior.

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A Flexible Observation Instrument for Student Behavior (FOISB)

Direct observation of student behavior has become increasingly used with the rise of behavior modification and concern about observable behavioral objectives and outcomes in schools. However, observation instruments for student behavior in school and residential treatment settings are still rare, and are often so specifically tailored to certain dependent variables, settings, or populations as to be useless to other investigators. The Flexible Observation Instrument for Student Behavior (FOISB) is designed for adaptation to a wide variety of settings, populations, and dependent variables where measurement of a range of behaviors of more than one or two students (as opposed to staff or single-student behavior) is the outcome of interest.

The FOISB should be of particular use in naturalistic field settings, such as classrooms, residential treatment groups, activity groups, etc. where a variety of student behaviors are likely to occur, and especially in such settings where an observation instrument that can easily be adapted to different research or evaluative needs is desired. It is not appropriate where student behaviors such as cognitive style, types of questions asked, etc., are of interest, or where teacher behavior is an important variable, but is of most value in settings that deviate from the kind of classroom in which students are usually in their seats and listen or respond to teacher presentations.

Behavioral Observation

Classroom observation instruments have mostly concentrated on teacher behavior, either teacher behavior exclusively (e.g., Joyce, 1967; Miller and Hughes, 1967, etc.), or primarily teacher behavior, with only peripheral

attention to student behavior. The Flanders and Flanders-derived observation systems are of the latter type (Flanders, 1966; Amidon, 1966; Honigman, 1967; Hough, 1967). These scales typically deal only with student verbal behavior as a response to teacher initiation or classroom climate that encourages student initiation. Clearly, the classroom for which these instruments were designed is a traditional, teacher-centered and controlled one where students exhibit a limited range of behavior. The great majority of existing observation instruments assume such a classroom, and as a result have limited utility in settings where a wide range of student behaviors is likely to be exhibited.

Of the observation systems which are focused on student behavior, many are based on the Bales (1970) Interaction Process Analysis, which is designed to record group dynamics in small discussion groups. This group of observation instruments (Argyris, 1965 ; Borgatta, 1965 , etc.) was not designed for use in the classroom, but could be used to observe group processes in schools. However, these instruments still focus exclusively on student verbal behavior.

Of the observation instruments which do focus on student behavior, most are designed to provide a task analysis of student behavior. These instruments employ a "point-time sample" procedure in which students are observed for a few seconds each in some order. Some of these systems are designed for settings which themselves focus on student behavior, such as programmed instruction (Lindvall, et al., 1967; Honigman and Stephens, 1969). These systems are designed to provide a task analysis of specific programs, IPI(Individual Programmed Instruction) and LAP (Learning Activity Packages)

respectively, and are therefore difficult to transfer even to other individualized programs. Other student-centered observation instruments provide a task analysis of student behavior, but do not provide information on non-task behavior or interpersonal behavior. Since scales are the Kowatrakul system (Kowatrakul, 1959), the Perkins system (Perkins, 1964), and the Science Curriculum Assessment Scale (Matthews and Philips, 1968). Many, such as the Taba scheme (in Simon and Boyer, eds. 1967) and the Wright-Proctor instrument (Wright and Proctor, 1969) focus exclusively on very fine distinctions in types of student verbal behavior.

The above observation systems have considerable utility in specific settings and for particular hypotheses. However, their hypothesis-specificity may create demand characteristics for the observer (the observer may see what he or she feels expected to see), and of course limits the utility of the instruments for other hypotheses and observation objectives.

A few observation instruments have been developed which are both setting- and hypothesis-general. These instruments focus on overt student behavior covering a wide range, including such areas as peer-directed and inappropriate behavior. Among these are "A Coping Analysis Schedule for Educational Settings, or CASES (Spaulding, 1967) and the Peer Interaction Recording System, or PIRS (Hops, 1973).

CASES involves thirteen categories of overt behavior, six of which (such as "sharing and helping" and "paying rapt attention") can be further scored appropriate or inappropriate, depending on the setting. The CASES system has been used successfully (according to the author) with children from two years of age to sixteen, in a multitude of classroom types, and to test a wide variety of hypotheses. Because it is centered on overt

student behavior it has been used effectively to measure outcomes of teaching strategies, particularly classroom management programs.

While the PIRS is more hypothesis-specific than CASES, it is interesting as a representative of recent behavioral approaches to interpersonal behavior. The PIRS has only eight categories; on-task or not, and verbal, non-verbal, and physical behavior which can be positive or negative, and records the classroom structure (teacher-led, individual-task, etc.) and activity in some detail. Like CASES, the emphasis is on behavioral outcomes of intervention programs in terms of overt student behavior. The PIRS is hypothesis-specific only in that its attention is limited to peer-related activity (or lack of such activity), but within that restriction a variety of hypotheses are testable using it.

The FOISB is most clearly in the tradition of these latter instruments. It is focused on overt student behavior and behavioral outcomes of teaching and management stragegies. It is designed for adaptability to many settings, and is hypothesis-and setting non-specific; hypothesis-and setting specificity is not a great problem for the experienced and well-funded researcher, who is able to create or adapt his own system and train observers to use it, but is a problem in field settings, where teachers, administrators, school psychologists, and resource persons as well as researchers may wish to have observation done but are limited by costs of observer training and inexperience with observation. The FOISB simplifies the task of designing and carrying out observation of student behavioral outcomes. Its purpose is to make field observation, and with it more frequent and systematic evaluation of field experimental programs, more practicable for more people and settings.

The Flexible Observation Instrument for Student Behaviors (FOISB)--User Guide

The principle features of the FOISB are as follows:

1. Focus on student behavior;
2. Adaptability to different needs;
3. Non-specificity of categories to particular hypotheses.

The FOISB is designed to record behaviors that are likely to occur in small groups, including classrooms, residential treatment units, activity groups, etc., groups in which a variety of behaviors are likely to occur. It is essentially a framework for construction of a wide variety of observation formats, but is most appropriate where any or all of the following are of interest:

1. Percent of time spent by students on tasks, as opposed to interacting with staff and being off task;
2. Percent of time spent by students in interaction with other students, as opposed to time spent alone;
3. Percent of time spent by students in appropriate as opposed to inappropriate activity;
4. Data indicating quality of student-student and/or student-staff interaction;
5. Frequency of certain categories of behaviors as a percentage of other categories (such as peer tutoring as a percentage of all task-related behavior, or friendly peer interaction as a percentage of all peer interaction.);
6. Differences between classes or between children on any of the above or other dimensions.

Who Should use the FOISB

The FOISB is designed for researchers, teachers, school psychologists, child care workers, etc., who are interested in obtaining the kind of information outlined above in naturalistic field settings. It is most useful when costs of observation are a source of concern, as both training and observation are designed to be relatively inexpensive. In addition, because of the flexible nature of the FOISB, an observer trained to use any FOISB-derived scale can very easily be trained to use any other. That is, any research or program evaluation question that involves observation of student behavior can be dealt with with minimal observer training costs after an observer or pool of observers is trained to use the FOISB.

General Procedure

Observation for the FOISB is done by a single observer who records the behavior of between three and ten or more students in a given setting. The observer moves from child-to-child in a predetermined order, observing each child for five seconds and recording his behavior in a three-part code. The first space indicates with whom the child is interacting: (I) isolate, (S) staff member, (P) peer.* The second space is for an indication of the appropriateness of the student's behavior in the setting (Appropriate (A), Inappropriate (I), or in some applications meeting expectations but exhibiting unfriendly or undesirable peer-directed behavior (E)). When the first two spaces are completed, a category describing the behavior being observed is chosen from a list corresponding to each possible combination, and is put in the third space. For example, if a behavior is rated I (isolate),

*For exact definitions of these and all other categories, see the Definitions of Behavior Categories, P. 20).

I (inappropriate) in the first two spaces, the choice for the third space might be among TO (talking out), AO (acting out) and ID (ignoring directions). The list from which the third-space categories are chosen is called a block; Block I consists of categories following I A, Block II of categories following S A, and so on, (see appendix A for an example of Blocks). The block system makes it possible for a large number of categories to be used, as the observer need only refer to or remember a short list of categories once the first two spaces are filled.

Each observation should represent fifteen seconds--five seconds of observation and ten seconds of writing and moving to the next child. In the uses of the FOISB thus far this time has been approximate, because comparisons across classes over time have been the outcomes of interest. If accurate estimates of percentages of time spent in a given class on a certain activity are needed, a pacing device such as a tape cassette marking twenty second intervals should be used.

As of the present, three adaptations of the FOISB have been used; West* I (seriously disturbed children, ages 6-11), West* II (behavior-problem children, ages 12-15), and East* I (behavior-problem children, ages 12-15). A typical observation sequence using West II categories appears below:

SAMPLE OBSERVATION FORM

Start 11:03 End 11:20 Setting HISTORY CLASS - 2ND PERIOD
Date 10-12 Staff Present MR. JONES, MS. SMITH
Behaviors Expected in Setting SMALL GROUP DISCUSSION - QUIET TALK, SEAT WORK

	Bill			Jim			Sue			Al			Dawn			
	I	A	OT	Da	A	ES	AI	A	C	Ji	A	C	S	A	I	
	Da Su	A	AI	Bi	E	R	I	I	ID							

* These school names are fictitious.

In the above example, Bill, Sue, Jim, Al, and Dawn are engaged in a small-group discussion in their history class. Bill is the first child observed. During the five seconds in which he is observed, he is writing--a behavior that is appropriate in the setting. He is therefore scored "I" (individual), "A" (appropriate), "OT" (on task), (for definitions of these categories, see the following pages.)

The observer then moves to Sue. Sue is telling Dawn what a nice job she thinks Dawn has done in writing an outline for the report the group is writing. She is scored "Da" (Dawn--peers are specified by name in the West II adaptation), A (appropriate), ES (encourages-supports). Jim is talking to Alan and their conversation does not fit into any of the more specific categories such as "ES: (encourages-supports), "AI" (asking to interact), or "PP-X" (praising peers to peers). Therefore, Jim's behavior is scored Al (Alan), A (appropriate), C (conversation). Alan is scored Ji (Jim) A, C.

During the five-second observation of Dawn, she is talking to Mr. Jones. She is scored S (staff), A (appropriate), I (interacting). Almost all interactions between students and adults in the West II adaptation are scored S A I. After completing one full sweep of the class, the observer begins again with Bill. Bill is asking Dawn and Sue if they would like to work with him on preparing a report on their discussion. He is scored Da/Su, A, AI (asking to interact). Sue refuses to work with Bill, even though she is not busy and could have worked with him; her behavior, while meeting the behavioral expectations of the setting (she is talking quietly, is in her seat, is working on the task at hand, etc.) is clearly not desirable interpersonal behavior, so it is scored Bi, E (meeting expectations but undesirable as interpersonal behavior), R rejecting appropriate approach). When the observer gets to Jim, he is out of his seat with-

out permission looking out of the window, so he is scored I (individual), I (inappropriate), ID (ignoring directions). After recording Jim's behavior, the observer moves on to Alan, and continues in this pattern until the page has been exhausted. On the new page the observer fills in the new starting time and fills in whatever changes have been made in the setting, expectations, or staff present since the earlier page. On the new page the same children are observed but in a different order.

The Behavior Categories

The FCISB categories appear in the chart below. The categories proceed from left to right, from most general to most specific. (For precise definitions of categories see P. 20).

BLOCK ORGANIZATION

	Appropriate	Inappropriate	Meeting Expectations
Individual	Block I (I A _)	Block IV (I I _)	
Staff	Block II (S A _)	Block V (S I _)	Block VII (S E _)
Peer	Block III (P A _)	Block VI (P I _)	Block VIII (P E _)

(For sample blocks, see Appendix A)

FOISB Categories

INDIVIDUAL

Block I: Individual Appropriate (I A _)

- On Task (OT)
  - On Task (OT)
  - Following Directions (FD)
- Isolate Play (IP)
  - Active Play (AP)
  - Daydreaming (DD)
- Waiting/Attending (WA)
  - Waiting (W)
  - Attending (A)
- Time Out (T)

Block IV: Individual Inappropriate (I I _)

- Ignoring Directions (ID)
  - Ignoring Directions (ID)
  - Not on Task (NT)
- Talking Out (TO)
  - Talking Out (TO)
    - Swearing (SW)
    - Talking Out (TO)
    - Bizarre Speech (BS)
  - Yelling/Screaming (YS)
    - Yelling/Screaming (YS)
- Acting Out (AO)
  - Gross Motor (GM)
    - Gross Motor (GM)
    - Running (RU)
  - Disturbing Property (DP)
    - Disturbing Property (DP)
  - Not Attending (NA)
    - Not Attending (NA)
  - Self Stimulation (SS)
    - Self Stimulation (SS)

STAFF

Block II: Staff Appropriate (S A _)

- Interaction (I)
  - Work With (WW)
    - Work With (WW)
    - Play With (PW)
  - Talk With (TW)
    - Talk-Task (TT)
    - Talk-Social (TS)
- ---------- Praises Peers to Staff (PP-X)**

FOISB Categories (continued)

Block V: Staff Inappropriate (S I _)

Ignoring Directions (ID)	Ignoring Directions (ID)	Ignoring Directions (ID)
Talking Out (TO)	Talking Out (TO)	Talking Out (TO)
		Complaining/Whining (CW)
		Swearing (SW)
	Yelling/Screaming (YS)	Yelling/Screaming (YS)
Hitting (H)		

Block VII: Staff "E" (S E _)

----------	Tattling on Peers to Staff (TP-X)**

PEER

Block III: Peer Appropriate (P A _)*

Sharing/Helping (SH)	Peer Task (PT)	
	Playing (P)	
Conversation (C)	Conversation (C)	Conversation (C)
		Praises Peers to Peers (PP-X)**
		Demands Appropriate Behavior (DA)
		Responds Appropriately to Inappropriate Behavior (RA)
		Asks to Interact (AI)
	Encourages/Supports (ES)	Encourages/Supports (ES)

Block VI: Peer Inappropriate (P I _)*

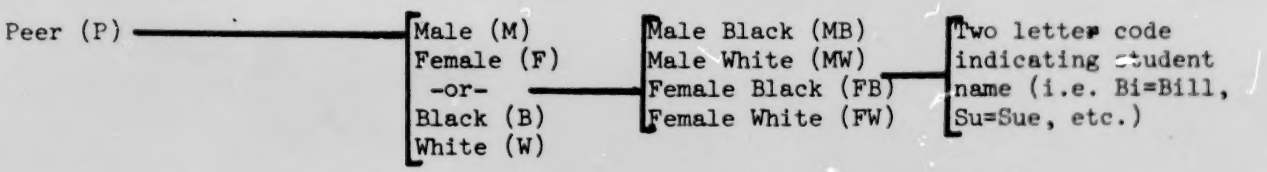
Ignoring Directions (ID)	Ignoring Directions (ID)	Ignoring Directions (ID)
	Cooperating in Inappropriate Behavior (CI)	Cooperating in Inappropriate Behavior (CI)
		Not on Task (NT)
Talking Out (TO)	Talking Out (TO)	Talking Out (TO)
		Swearing (SW)
	Yelling/Screaming (YS)	Yelling/Screaming (YS)
Fighting (F)	Fighting (F)	
	Hitting/Shoving (HS)	

Block VIII: Peer "E" (P E _)*

Peer Unfriendly (PU)	Put Down (PD)	Put Down (PD)
		Rejects (R)
		Tattling on Peers to Peers (TP-X)**
	Teasing/Bugging (TB)	Teasing/Bugging (TB)
	Arguing (A)	Arguing (A)

FOISB Categories (continued)

* The "P" in the first space may be replaced by any of the following, depending on the uses of the instrument:



**The "X" in TP-X and PP-X may be replaced by one of the above codes (P,M,MB,Bi, etc.) to indicate the peer referred to. In addition, the code replacing "X" may be circled if the peer being talked about is present.

How to Use the FOISB

While the FOISB is designed to provide information about the entire range of student behavior in a setting, it is flexible so that it may provide fine distinctions in areas of interest to the researcher while summarizing areas of less interest. For example, in West I the important dependent variables were percentage appropriate (especially task) behavior over all behavior, percentage of peer-directed behavior over all behavior, and severity of inappropriate behavior. As a result, the most specific categories were used to record inappropriate behavior in Blocks IV and V (individual and staff inappropriate), and the intermediate level of specificity was used in Block VI (peer inappropriate). A specific breakdown of task behavior was used (on task (OT) was broken into on task (OT) and following directions (FD)), but only the most general breakdown of peer-oriented behavior was used (sharing/helping (SH) and conversation (C)). Blocks VII and VIII (peer and staff (E)) were not used at all. In West II and East I, quality of peer behavior was the variable of greatest interest, so the highest levels of specificity were used for all of the peer blocks (III, VI, and VIII), and block VII (staff E) was used. On the other hand, the more general category was used for task behavior (on task (OT) as opposed to on task and following directions (FD)). In this way, maximum specificity is gained in areas of interest with the minimum costs in observer training, observer time and effort, and analysis. In addition, if certain categories are underused or unreliable, they can be collapsed into the more general category to the left on the chart (e.g., if peer task (PT) cannot be distinguished from playing (P), these categories may be summarized as sharing/helping (SH)). This may be done in the course of a series of observation or post hoc in the analysis of the data. Because this collapsing can be done at any time, it is most sensible to begin with a list of categories that might be too specific rather than one that is too general.

In constructing an observation instrument from the FOISB it is most logical to go block-by-block, weighting the blocks themselves in importance and then deciding within the blocks which items should be specific and which general. Blocks VII and VIII are optional; they are used only when the quality of peer behavior is of interest.

Adding Categories

The FOISB may be seen as a framework for observation instruments in which either FOISB categories may be used or a combination of FOISB categories and others may be used. If FOISB categories are still too general, incomplete, or otherwise inappropriate for certain uses, the general framework may be filled out with the user's own categories. Behavior categories that are more specific than those available in the FOISB should be "nested" in FOISB categories so that they may be "collapsed" into an FOISB category if they turn out to be impossible distinctions to make, or if they are not used very often in practice.

With the above considerations and procedures in mind, a researcher interested in observing student behavior should be able to use the FOISB to measure a wide range of outcomes of instruction and classroom organization.

How Data May be Used.

In general, behavior categories should be reported as percentages of total observations. That is, if 5 observations on a child are S A I, and there are a total of 25 observations of the child in a given setting, the child would be scored 20% S A I in that setting. For "cycles," categories are expressed as percentages of other categories (see the discussion of "cycles" below.) For class-level outcomes (for which the FOISB is specifically designed) category frequencies may be summed across individuals for a given setting, and then divided by the total number of observations in the setting (individual percentages cannot be averaged). If a pacing device is not used to insure equal time intervals for each observation, the FOISB data can be meaningfully used to

compare classes with each other and to register changes in category frequencies over time. If a pacing device is used, estimates of proportions of time spent in certain activities may be made, but will still be slightly biased because of observation procedures such as marking behaviors appropriate rather than inappropriate if in doubt, or scoring S or P if staff-or peer-directed behavior occurs at any time during the five-second interval.

Cycles

In addition to simple proportions of behavior categories over all observations, certain analyses within behavior types may be desired. For example, it may be interesting to compute a proportion of on task (OT) behavior over all opportunities for task behavior. To produce this outcome, "opportunities for task behavior" need to be defined. They would be defined as times or settings when task behavior is the major acceptable behavior. Any behavior that is not on task during such times is scored not on task (NT) in addition to whatever else it is scored. In other words, if a child is having a tantrum during class, the behavior would be scored I I GM/YS/NT--that is, gross motor (GM) for kicking the wall, yelling/screaming (YS) for screaming, and not on task (NT) because all of this is being done during a time when task behavior is clearly expected. Also, either on task (OT) or peer task (PT) would be scored for any appropriate behavior during a task session where these activities are going on. For instance, if one student is working on a project with another and says "good work" to the coworker, the behavior is scored P A ES/PT, encourages/supports and peer task. A task score for a student is obtained by adding observations scored on task and peer task, and dividing by on task + peer task + not on task, or:

$$\frac{OT + PT}{OT + PT + NT.}$$

Similar procedures may be used to obtain estimates of peer play over all play $\frac{P}{P+IP}$ using the same principle that all play behaviors include P or IP in addition to whatever else they are scored. Note that staff-task and staff-play have been excluded from both formulas. This does not have to be done, but because the majority of student-staff interaction is typically staff initiated and allows little choice of response it has not been included in "cycles" in the applications of the FOISB to date. Of course, in the construction of observation instruments from the FOISB using "cycles" it is essential that categories be used that include only the behaviors involved in the cycle--for example, if a task cycle is used, ignoring directions (ID) could not be used in place of ID and OT, as the first ID would include behaviors that are contrary to expectations other than task expectations (e.g., violating playground rules).

Notes on Observation using the FOISB

Many FOISB categories depend entirely on an understanding of the expectations of the setting. This is essential in determining whether behavior is appropriate or inappropriate. For example, looking at the ceiling would be scored I I NT during a task setting, I I NA during a teacher lecture where there were strong expectations to watch the teacher, I I ID if the student had earlier been asked to clean up his or her desk and has not done so, and I A WA if the class is in a transition period where just waiting is appropriate. Therefore the first task of the observer is to find out the major expectations in the setting. However, only the major, very clear expectations are important. Violations of rules or expectations that are expressed but not enforced are not scored inappropriate. Once the expectations are understood, the categories that may be used are usually considerably narrowed. If a task setting is being

observed, appropriate behavior can only be I A OI, S A T, or P A PT (if students are allowed to work with each other). I A WA or I A IP cannot be observed during a task setting unless students are permitted to wait around or play after they have finished their work.

How close the observer must be to the students being observed depends on the observation categories being used. If very specific categories for peer-directed behavior are used, the observer will obviously have to get rather close to groups of students (but not so close as to inhibit their behavior). If only more general categories are used, proximity is less of a problem. Similar issues may be dealt with by the observer or researcher on a common-sense basis, taking into account the specific situation and intended uses of the observation. See P. 32 for specific observation procedures used with the East I FOISB adaptation.

Observer Training and Reliability Estimation

Because the FOISB has been used in low-budget research, training aids such as video taping and one-way screens have not been available. Observer training and reliability checks have been done in the actual settings in which the observation will be done. In this way the children to be observed may become accustomed to observation at the same time as the observer is trained. In both training and reliability estimation the trainer or checker paces the observation so that each observer observes the same child during the same five seconds. After reading the category definitions, the trainer and observer go into the classroom and observe together. The observer's choices of categories are compared with the trainer's on a continuous basis, and both leave the classroom to discuss discrepencies as they occur. Training for the FOISB using this procedure has taken six hours or less. In obtaining reliability, responses cannot be compared until the observation is completed.

Note that the pacing procedure is not the same as that used in many observation instruments which are similar to the FOISB, such as the Flanders-and Bales-based instruments (both of which compute reliability by total use of different categories instead of observation by observation agreement). The pacing procedure has the advantage that agreement on how behaviors are scored is computed rather than agreement on what is observed. The pacing also has an incidental but important advantage in that it allows later discussion of discrepancies, thus continuing training and minimizing "instrument decay." In addition, the "pacing" is more likely than the Flanders-Bales techniques to show agreement on infrequent categories.

Reliability for the entire instrument is computed by simply dividing $\frac{\#\text{Agreements}}{\#\text{Observations}}$. A minimum reliability for the whole instrument has been .80; inter-observer reliability estimates have ranged in the three applications of the FOISB from .82 to .91.

However, reliability for the entire instrument may be inflated by high reliability of high frequency categories (such as S A I, I A IP, etc.). Johnson and Bolstad (1973) suggest that reliabilities for individual categories be computed before using these categories as dependent variables. An agreement score for individual categories could be computed by $\frac{\#\text{ Agreements on category}}{\#\text{ Agreements + Disagreements}}$, where # disagreements = # times where one observer scores a behavior using the category and one does not. A minimum reliability for categories depends on a number of factors, and is ultimately an arbitrary decision; however, as Johnson and Bolstad point out, "Any positive finding which emerges in spite of a good deal of noise or error variance is probably a relatively strong effect" (P. 17). That is, low category reliability is not a problem if it is due to unbiased error

and if results are positive (but <u>is</u> a problem in substantively interpreting findings of no significant differences.)

Definitions of Observation Categories (West II)

Definitions of the codes used in the observation instrument appear below. Exact observation procedures and conventions are listed at the end of the definitions. In addition, Appendix A, section II provides a simplified listing of observation categories for use in actual observation.

1. With whom does behavior occur? (first space on observation form)

Individual, Isolate I

Child is not interacting with anyone else. If a child interacts with a peer or staff member at anytime during the five second observation he is scored with a peer or staff code. I may be used when a child is in the immediate vicinity of other children or staff, but is either not involved at all or only watching the other people. This includes such settings as group meetings, where a child is scored GRP if making a general announcement, S if talking to staff, or with the appropriate peer code if talking to a peer; but if the child is neither talking nor directly being talked to as an individual, an I is recorded in the first space.

Staff. . . . . .S

Child is interacting with an adult. Interactions with all adults, even if not staff, are scored S. When a staff member is directly talking to a child the child is scored S, regardless of what the child is doing. If a child is interacting with both a staff member and a peer, both codes may be used.

Peer. . . . . (X)

Child is interacting with a peer. The (X) is always replaced by a one or two letter code indicating the name of the peer with whom the child is interacting, e.g., Bi for Bill, Su for Sue.

2. Is the child's behavior appropriate? (Second space)

Appropriate. . . . . A

Child is meeting both explicit expectations and very clear implicit expectations of the setting. A is used whenever I and E do not clearly apply. Very clear implicit expectations are expectations that any child would know exist (children do not need to be told specifically not to pound rulers on their desks).

Inappropriate. I

Child is clearly not meeting the expectations of the setting. Behavior that would be scored I is in general behavior that would be responded to negatively by the teacher. Which behaviors are scored I is determined by the specific setting in which observation is done. For example, NA (not attending) is clearly inappropriate during settings such as group meeting, where there is a clear and consistent expectation that children should listen. If this expectation is not in effect, the same behavior would be scored I, A, WA (waiting, attending). When difficulties in making judgements arise, the staff should be asked to decide whether the child's behavior is appropriate or inappropriate. Some behaviors, such as fighting, are clearly inappropriate in all settings. Behaviors which may have been deemed inappropriate only for certain individuals are not scored inappropriate unless they would be scored inappropriate for any child doing the same thing. Once an I is entered in the second space the observer is limited to behavior categories specifically identified as inappropriate. In other words; playing inappropriately could never be scored I, I, IP, because IP is only used for appropriate behavior. The only exception to this is T time outs may either be taken appropriately (I, A, T) or inappropriately (I, I, T).

Meeting Expectations. . . . . .E

E is used to signify behaviors which are not inappropriate according to expectations established for a setting, but are hostile or undesirable peer or staff-directed behaviors. If, for example, Bill is fighting with Jim, Bill would be scored Ji, I, F (fighting), because fighting is clearly contrary to expectations in any setting. If, on the other hand, Bill and Jim are playing a game during a period where game playing is appropriate and Bill says, "Jim, you don't know how to play, you're stupid," Bill would be scored Ji, E, PD (Put Down), because Bill's behavior, while not contrary to expectations, is intended to put down Jim. As a rule of thumb, behaviors which are or might be followed by unpleasant consequences from staff are scored I; behaviors which probably would not be followed by unpleasant consequences from staff are scored E. E is not to be used to mean "neutral"--truly neutral behavior is scored A.

3. Behavior Categories

Definitions of Individual Observation Categories

1. Appropriate Individual Behaviors (Third Space)

On Task. . . . . .OT

Perform main task expected in setting. OT is used only for behaviors which are agreed upon in advance. A score of OT in a setting should mean something specific--in lunch it would be eating, and no other behavior in that setting would be scored OT. Behavior that is "on task" but is not the main task of the setting is scored FD. OT is not used at all in settings without routine main tasks, such as freetimes and activity periods. Its primary use is in school to indicate working appropriately on school tasks.

Following Directions. . . . . FD

Child is performing a task either immediately directed by staff or clearly understood in the setting. Examples of the latter are cleaning up at lunch and coming into class and sitting down appropriately--children understand that these things must be done, so they are following directions from the staff that were stated long ago. FD is distinguished from IP in that the child would probably not choose an activity that would be scored FD--the activity is performed because the child is told to do it or has been told to do it in the past.

Isolate Play. . . . . .IP

Child is doing something individually that would not be scored FD or OT. In general, a child should be doing something that the child has chosen to do in order to be scored IP. A child who has selected a game and is playing it would be scored IP; if it has been assigned, the child would be scored FD or OT. Almost anything a child does individually is scored IP, so the observer need not be within earshot of a solitary child to score the child unless the child should be on task or following directions.

Waiting or Attending. . . . . .WA

Child is doing nothing, waiting for something to happen, or watching an activity without getting involved in it in any way. This category acts as a dumping ground for behaviors that really aren't anything. If a child is doing anything individually during a free period, the observation is usually marked as IP. WA exists to record those observation periods where the child is "in neutral." Standing in line is usually scored WA.

Time Out. . . . . .T

Time out refers to a "time out from reinforcement," such as where a child

is asked to sit in a chair in a corner or leave the room as a consequence of some inappropriate behavior. Taking a time out appropriately according to expectations and directions of staff is scored I, A, T; inappropriately taking a time out would be scored I, I, T. T is the only category that indicates a "state of being" rather than a behavior, so whenever possible a behavior is also scored with the T when the time out is taken inappropriately. (e.g., I, I, T/TO)

II. Inappropriate Individual Behaviors

Ignoring Directions. . . . . .ID

Child is not on task or not following directions when expectations are clear; child is engaged in inappropriate behavior that cannot be scored otherwise. ID is used when I is in the second space and the child is not talking out, stealing, or tantruming. It is more serious than NA, (Not Attending), but less serious, in general, than other inappropriate behavior categories.

Talking Out. . . . . .TO

Child makes inappropriate noise with voice or objects. Swearing, crying, talking loudly to self, and using objects to make noise are scored TO, assuming that these noises are inappropriate in the setting. The level of noise that gets scored TO depends on the setting. As noise becomes louder and more inappropriate it becomes YS instead of TO.

Yelling, Screaming. . . . . .YS

Makes very loud inappropriate noises, yells and screams. YS behaviors are the same as TO behaviors (e.g., swearing, crying, making noises with objects), except they are much louder and more inappropriate.

Gross Motor. . . . . .GM

Running, throwing objects, pounding, tantruming in genuine anger or frustration.

Not Attending. . . . . .NA

Failing to attend to a staff member or peer when expectations to attend are very clear (when not listening might be followed by unpleasant consequences by staff).

Disturbing Property. . . . . .DP

Stealing; deliberately and inappropriately destroying property.

I. Appropriate Peer Behaviors

Sharing, Helping, Playing. . . .SH

Playing together, cooperating with another child, engaged in the same activity as another child if the activity requires any sharing, helping, or coordinated effort. Two children lining up at a diving board together are scored SH, but two children in different parts of the same tree playing individually would be scored I, A, IP. For a behavior to be scored SH, it must involve physical activity; verbal activity only is not scored SH. If conversation during play is directly related to the play ("your move;" explaining rules, etc.) the conversation is not scored. If there is conversation not directly related to the game it is scored SH/C, SH/ES, etc. Peer tutoring is scored SH/OT (Sharing, Helping, On Task).

Conversation. C

Participates in conversation with another child. Conversation can include simply nodding or clearly attending to another child's conversation, but is

not used when a third child is just listening to and not participating in a conversation between two other children. When AI, DA, R and ES are used, C need not be scored; all peer categories except SH imply conversation, so C would be superfluous. C is only used when no other category is appropriate.

Asks to Interact. . . . . .AI

Approaches another child to involve that child in an activity. AI is distinguished from DA by the outcome of the behavior desired by the child. If successful, AI leads to play, while DA leads to work, study, or compliance.

Demands Appropriate Behavior. . . DA

Asks another child to emit appropriate behavior. A good rule for determining behaviors to mark DA would be to so score statements designed to lead another child to emit behaviors that would earn praise or other reinforcement from staff. Responses to inappropriate or unpleasant behavior from other children directed at the child being observed would be scored RA if appropriate, not DA; in general, RA follows a behavior that would be scored peer inappropriate (such as HS, TB, YS , while DA is used when a child wants to encourage another to perform for that child's own good or for the good of the group.

Responds to Inappropriate
Behavior Appropriately. . . . . .RA

Ignores, warns, or otherwise deals appropriately with inappropriate behavior emitted by other children. If another child does something to the child being observed that would be scored peer inappropriate (such as HS, F, TB, TO), and the observed child's response appears to be appropriate, the response is scored RA. It may be necessary to have staff explain to the observer expectations for appropriate ways of dealing with inappropriate behavior;

these expectations may vary from child to child. In general, R will be used when CI and TP do not apply as scores for appropriate responses to inappropriate behavior.

Encourages, Supports. . . . . .ES

Reinforces another child for appropriate behavior or encourages another child for attempts to do well. ES covers all nice things children say to each other about their work or their general behavior. The behavior being encouraged by the observed child does not have to be behavior that would be reinforced by staff, but can be any behavior that is not inappropriate. Statements as simple as "thank you" would be scored ES.

Praises Peers to Peers. . . . .PP-X

Says nice things about one peer to another. The X in PP-X is replaced by the code for the child being mentioned positively. If Martin is saying nice things about Paul to Tom, Martin is scored Tm, A, PP-Pa. If the child being discussed is present during the positive discussion, that child's code should be circled.

II. Peer-Directed Behaviors Scored E

Behaviors scored E are appropriate in the setting but undesirable as peer behavior. If Jim bugs Paul during a session where conversation is appropriate, Jim's behavior would be scored Pa, E, TB. The third-space categories used with E may be used with I as well. For instance, if the same behavior occurred during a quiet study period, Jim would be scored Pa, I, ID/TB. In general, if I is used in the second space with the below behaviors, a behavior category usually scored I should accompany the category usually scored E (e.g., ID/TB; TO/PD; TO/AR).

Teasing, Bugging. . . . . .TB

Bothering, bugging, teasing with intent to make another child unhappy. Intent is very important in this category, as teasing can easily be appropriate. Appropriate teasing would be scored SH if physical, C if only verbal. Inappropriate teasing includes taunting, setting up, practical jokes meant to hurt or make unhappy, etc. TB can be used to score behaviors that are either physical, such as poking, or verbal, such as verbal set ups and inappropriate teasing. TB behaviors will generally be those which are designed to evoke a response from the receiver by means of negative or annoying methods.

Put Down. . . . . .PD

Verbal statements whose intent is to hurt or make unhappy. Actions such as refusal to include another child in an activity, belittling, ridiculing, are scored PD. As with TB, intent is crucial for this category. "Put Downs" clearly made in fun are scored C. R may be scored with PD if both apply, as they would if child Y approached child X to see if X wanted to play chess and X said "forget it, you don't know how to play anyway." That interchange would be scored Y, E, R/PD. PD may also be scored along with AR, SY, HS, etc.

Rejects Appropriate Approach. . . R

Turns down legitimate request to interact; ignores appropriate communication when option to respond positively is clearly present. This category should be used to score unfriendly responses to friendly initiations. If Tom asks Paul if he would like to play chess, and Paul says that he already has

promised to play Martin, Paul would be scored Tm, A, C, not R. He would be scored R, however, if he clearly could have played with Tom but chose not to. This category should not be used unless the child being observed heard the initiation and could have responded to it, but chose not to primarily as an expression of unfriendliness.

Tattling on Peers to Peers. . . . .TP-X

Telling children about negative behavior of other children, saying negative things about children to other children. As with PP, the name of the child being talked about is substituted for the X in TP-X. TP does not have to imply tattling or telling on--it is the counterpart to PP, where children tell each other nice things about other children.

Arguing. . . . . .AR

Arguing in an unfriendly or abrasive manner. AS should not be used to score appropriate problem solving between children or to score arguments about issues. It should be used when children are involved in essentially unfriendly argument that is clearly not productive.

III. Inappropriate Peer Behaviors

Ignoring Directions. . . . . .ID

Violating expectations in a setting involving a peer. This category is used only when the peer involved does not respond inappropriately. If Tom is whispering to or throwing paperclips at Jim, and Jim is not whispering back or throwing paperclips back, Tom's behavior is scored Ji, I, ID/TB. Jim's behavior would be scored TO, A, RA. However, if Jim responds by getting involved in Tom's inappropriate behavior, Jim is scored TO, I, CI, and Tom is scored Ji, I, CI.

Talks out to Peers. . . . . .TO--more severe--YS

Swearing or yelling at other children in genuine anger or frustration. The intent or origin of TO behavior must be in venting spleen. "Shut up" or "drop dead" are TO if they meet this criterion, but they may also be scored as RA or PD. In general, TO is used when behavior is loud and angry, and YS is used when behavior is louder and angrier.

Cooperating in Inappropriate Behavior..CI

Participating either as an initiator or as an accomplice in behavior that would be scored inappropriate. This category should be used when two or more children are engaged together in behavior that violates the expectations of a setting. It may not be used to score inappropriate behavior of an individual that is directed at a peer if the peer does not respond.

Hitting, Shoving. . . . . .HS

Physical aggression done with the intent to cause discomfort (as opposed to pain). HS includes punching, shoving, slapping, etc. used to indicate displeasure, pick on someone, or as an expression of frustration. HS must be differentiated from legitimate horseplay--HS is scored only when unfriendly or hostile intent is apparent. The difference between HS and F is one of degree; F is used when the intention to hurt is clear.

Fighting. . . . . .F

Physical contact between two or more children where there is clear intent to hurt. F should be scored when fighting occurs that is serious enough that the fighters would have to be separated.

Definitions of Staff Observation Categories

I. Appropriate Staff Behaviors

Interaction. I

Interaction with staff member. Nearly all appropriate interaction with staff is coded I, including working with staff, playing, conversing, listening to, and otherwise dealing with staff. In most cases the observer need not be within earshot to score a child-staff interaction SAI.

Praising Peers to Staff. .PP-X

See Praising Peers to Peers. Definition and procedures are the same for staff as for peers.

II. Staff-Directed Behaviors Scored E

Tattling on Peers to Staff. . .TP-X

Same as TP-X for peers. As with TP-X for peers, the behavior need not be tattling on peers to staff, but may be negative statements or complaints about peers. This is the only staff-directed behavior scored E in the second space; saying negative things about peers to staff is appropriate, but could not be called desirable behavior with regard to peers.

Interperson Inappropriate. . .II

Child behaves in a manner that would be scored E, but no other category fits. Whining, subtle set ups, general "wet blanket" kinds of behavior directed at peers are included here. II may also be used when behavior is clearly interpersonally inappropriate, but it is impossible to tell who did what to whom.

III. Inappropriate Staff Behaviors

Ignores Directions. . . . . .ID

Ignores direct demands from staff or fails to respond to staff conversation. See ID under individual behaviors.

Talks out to Staff. . . . . .TO (if severe, use YS)

Same as TO for peers.

Observation Procedures

1. When groups of two or more children are physically removed from the rest of the group, the observer should alternate between the groups, making four observations on each child before moving to the other group. "Physically removed" can mean as close as in corners of the same room. This procedure is designed to allow observation both of initiations and of responses in the small groups, and should eliminate "bouncing" between small groups.
2. When both individual and staff or peer-directed behaviors are observed in the same five-second observation, the staff- or peer-directed behavior is coded, regardless of how brief it is. When both peer and staff interaction occur, both are recorded.
3. Certain peer behaviors occur relatively infrequently, but are very important. These are AI, DA, RA, ES, and PP-X of the appropriate peer-directed behaviors, and R and TP-X of the inappropriate. If behaviors which fit into these categories occur in the same observation as other behaviors, these behaviors should be scored, either along with the other behavior or instead of the other as appropriate (for instance,

C need never be scored when there is a more precise category available for verbal behavior; II is never scored when a more precise code is available for inappropriate or undesirable peer-directed behavior.

4. Occasionally, children exhibit behavior with each other that is clearly of very high quality. Offer of help, exhibiting genuine concern for other children's feelings, in general doing very nice things with peers are behaviors that are hard to specify well enough in advance that a behavioral category could be constructed to record them. Instead, this will be noted by the observer when it occurs based on subjective judgment. The observer should circle the A in the second space to signify peer-directed behavior that is clearly of high quality, that shows real interpersonal concern or willingness to go out of the way to do nice things for peers. A brief note describing the circled-A behavior should be included in the margin. Whatever criteria are used for deciding what is very high quality interpersonal behavior, the same criteria should be used over time and in different settings, although the criteria may vary for individual children (very high quality peer behavior in one child could be normal behavior in another).

5. During class periods when a child is expected to be on task, ID is scored along with all other categories of inappropriate behavior. That is, if a child is yelling during class, the score is recorded as YS/ID because the child is also not on task. During such periods, all behaviors except S, A, I must be scored either OT or ID, along with whatever else is appropriate.

References

Amidon, E.; and Hunter, E. Verbal Interaction Category System (VICS), in Improving Teaching: Analyzing Verbal Interaction in the Classroom. New York: Holt, Rinehart, and Winston, 1966, pp.209-221

Argyris, C. Organization and Innovation. Homewood, Illinois: The Dorsey Press, 1965

Bales, R. Personality and Interpersonal Behavior. New York: Holt, Rinehart, and Winston, 1970

Borgatta, E.; and Crowther, B. A Workbook for the Study of Social Interaction Processes. Chicago: Rand McNally & Co., 1965

Flanders, N. Interaction Analysis in the Classroom: A Manual for Observers. Ann Arbor, Michigan: University of Michigan Press, 1966

Honigman, F. Multidimensional Analysis of Classroom Interaction (MACI). Villanova, Pennsylvania: Villanova University Press, 1967

Honigman, F.; and Stephens, J.B. Student Activity Profile (SAP). Fort Lauderdale: NeaRad, Inc., 1969

Hops, H. The Peer Interaction Recording System (PIRS). Center Report of the Center at Oregon for Research in the Behavioral Education of the Handicapped (CORBEH), The University of Oregon, 1973

Hough, J. An observational system for the analysis of classroom instruction. in Amidon, E., and Hough, J. (eds.) Interaction Analysis: Theory, Research, and Application. Reading, Mass.: Addison-Wesley, 1967

Johnson, S.M.; and Bolstad, O. Methodological issues in naturalistic observation: Some problems and solutions for field research. In Hamerlynck, L.; Handy, L.; and Mash, E. (eds.) Behavior Change: Methodology, Concepts, and Practice. Champaign, Ill.: Research Press, 1973

Joyce, B.; and Harootunian, B. Manual for analyzing the oral communications of teachers. In The Structure of Teaching. Chicago: Science Research Associates, 1967, pp. 228-246

Kowatrakul, S. Some behaviors of elementary school children related to classroom activities and subject areas. Journal of Educational Psychology, June, 1959, 50, pp. 121-129

Lindvall, C.: Yeager, J.: Wang, M.: and Wood, C. Manual for IPI student observational form. In Simon, A.; and Boyer, E.G. Mirrors for Behavior: An Anthology of Classroom Observation Instruments. Philadelphia, Pa: Research for Better Schools, Inc., 1967

Matthews, C.C.; and Phillips, D.G. Handbook for the application of the Science Curriculum Assessment System. In Simon,A.; and Boyer, E.G. (eds.) Mirrors for Behavior: An Anthology of Classroom Observation Instruments. Philadelphia, Pa.: Research for Better Schools, Inc., 1967

Miller, G.L. The collaboration scale for the analysis of teaching: Response - directive dimension. In Simon, A.; and Boyer, E.G. Mirrors for Behavior: An Anthology of Classroom Observation Instruments. Philadelphia, Pa.: Research for Better Schools, Inc., 1967

Perkins, H. A procedure for assessing the classroom behavior of students and teachers. American Educational Research Journal, November, 1964, 1, pp. 249-260

Skindrud, K. Field evaluation of observer bias under overt and covert monitoring. In Hamerlynck, L.; Handy, L.; and Mash, E. (eds.) Behavior Change: Methodology, Concepts, and Practice. Champaign, Ill.: Research Press, 1973

Spaulding, R.L. An Introduction to the Use of the Coping Analysis Schedule for Educational Settings (CASES). Durham, North Carolina: Education Improvement Program, Duke University, 1967

Taba, H. Taba coding scheme. In Simon, A.; and Boyer, E.G. Mirrors for Behavior: An Anthology of Classroom Observation Instruments. Philadelphia, Pa.: Research for Better Schools, Inc., 1967

Wright, E.M.J.; and Proctor, V. Systematic Observation of Verbal Interaction as a Method of Comparing Mathematics Lessons. St. Louis: Washington University, 1961

Appendix A

Behavior categories used at West I, West II, and East I.

I. Categories for West I

Used with six seriously disturbed children (model age = 6) in a residential treatment unit. Major dependent variables:

$$\frac{\text{\% Peer Appropriate Behavior}}{\text{All Behavior}} ;$$

$$\frac{\text{\% Appropriate Behavior}}{\text{All Behavior}} ;$$

$$\frac{\text{\% Peer Play}}{\text{All Play}} ; \quad \text{(activity setting only)}$$

$$\frac{\text{\% On Task}}{\text{On Task + Ignoring Directions}} \quad \text{(school setting only)}$$

West I

Appropriate	Inappropriate
BLOCK I: I A _	BLOCK IV: I I _
On Task . . . . . .OT	Ignores directions. . . . .ID
Attends . . . . . .A	Not attending . . . . . .NA
Isolate play. . . . . .IP	Talking out . . . . . .TO
Follows directions. . . . .FD	Yelling/screaming . . . . .YS
Waits . . . . . .W	Gross motor . . . . . .GM
Time out (approp.). . . . .T	Time out (inapprop.). . . .T
	Self-stimulation. . . . . .SS
BLOCK II: S A _	BLOCK V: S I _
Interaction. I	Refuses directions. . . . .RD
	Talking out . . . . . .TO
	Yelling/screaming . . . . .YS
	Fighting. . . . . .F
	Teasing/bugging . . . . . .TB
	No response . . . . . .NR
BLOCK III: (P) A _ *	BLOCK VI: (P) I _ *
Sharing/helping. . . . . SH	Rejecting. . . . . R
Encouraging/warning. . . . EW	Talking out. . . . . TO
Initiating conversation. . IC	Yelling/screaming. . . . . YS
Replying to conversation . RC	Hitting/shoving. . . . . HS
	Fighting . . . . . F
	Teasing/bugging. . . . . TB
	No response. . . . . NR

II. Categories for West II

Used with seven behavior-problem children (modal age = 10) in a residential treatment unit. Major dependent variables same as for West I with the following addition:

$$\frac{\%\ \text{"E"}}{\text{All peer-directed behavior}}$$

	Appropriate	Inappropriate	"E"
Individual	BLOCK I: I A _ On task . . . . . .OT Following directions.FD Isolate play. . . . .IP Waiting/attending . .WA Time out. . . . . .T	BLOCK IV: I I _ Ignoring directions. . .ID Talking out. . . . . .TO Yelling/screaming. . . .YS Gross motor. . . . . .GM Not attending. . . . . .NA	
Staff	BLOCK II: S A _ Interaction. . . . . I Praises peers (to staff) . . . .PP (p)*	BLOCK V: S I _ Ignores directions . . .ID Talking out. . . . . .TO Yelling/screaming. . . .YS Fighting . . . . . .F	BLOCK VII: S E _ Tattling on peers. .*TP(A) to staff
Peer	BLOCK III: (P) A _* Sharing/helping. . . SH Conversation . . . . C Ask to interact. . . AI Demands appropriate behavior . . . . DA Responds appropriately to inappropriate behavior.. . . . RA Encourages/supports. ES Praises peers to peers. . . . . PP-X*	BLOCK VI: (R) I _* Talking out. . . . . .TO Yelling/screaming. . . YS Cooperating in inappropriate behavior . . CI Ignoring directions. . ID Hitting/shoving. . . . HS Fighting . . . . . F	BLOCK VIII: (P) E _* Teasing/ bugging. . . . TB Put down. . . . . PD Rejects . . . . . R Tattling on peers to peers.PP-(P)* Arguing . . . . . A Interpersonal Inappropriate. II

III. Categories for East I

Used to observe four social studies classes in a school for disturbed children - ten students randomly selected for observation in each class.

Dependent variables same as West II with the following additions:

$\frac{PT}{PT + OT}$, $\frac{PT}{PT + OT + NT}$ (in place of $\frac{OT}{OT + ID}$).

BLOCK I: I A _	BLOCK IV: I I _	
On Task . . . . . OT	Not on task. . . . . NT	
Isolate play. . . . . IP	Ignoring directions. ID	
Waiting/attending. . . . WA	Talking out. . . . . TO	
Time out. . . . . T	Gross motor. . . . . GM	
	Not attending. . . . NA	
BLOCK II: S A _	**BLOCK V: S I _**	**BLOCK VII: S E _**
Interaction. I	Ignoring directions. .ID	Tattling on peers to staff. .TP-(P)
Praises peers to staff.* PP-(P)	Talking out. . . . . .TO	
	Complaining/whining. .CW	
BLOCK III: (P) A _	**BLOCK VI: (P) I _**	**BLOCK VIII: S E _**
Peer task. . . . . .PT	Not on task . . . . .NT	Teasing/bugging. .TB
Playing. . . . . .P	Talking out . . . . .TO	Put down. . . . . .PD
Conversation C	Yelling/screaming . .YS	Rejects. . . . . .R
Asks to interact . . . . .AI	Cooperating in inappropriate behavior. CI	Tattling on peers to peers. . . .TP-(P)*
Demands appropriate behavior . . . . . .DA	Ignoring directions.ID	Arguing. . . . . .A
Responds appropriately to inappropriate behavior . . . . . .RA	Hitting/shoving. . .HS	
Encourages/supports. . .ES	Fighting* . . . . . .F	
Praises peers to peers . . . . . .PP-(P)		